

Serial No. 10/760,454

Docket No. P-0645

Amendment dated June 22, 2005

Reply to Office Action of March 4, 2005

**Amendments to the Drawings**

The attached drawing includes changes to Figure 5. This sheet, which includes Figure 5, replaces the original sheet including Figure 5. Figure 5 has been amended to correct typographical errors.

Attachment: Replacement Sheet (1)  
Annotated Sheet Showing Changes (1)

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### **REMARKS/ARGUMENTS**

Claims 1-2, 4, 35-42, 44-51, and 53-56 are pending in this application. By this Amendment, the drawings, Abstract, specification, and claims 41, 44-48, and 51 are amended, claims 54-56 are added, and claims 43 and 52 are canceled. The drawings, Abstract, and specification are amended for clarification purposes only. No new matter is added. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal (if necessary). Entry is thus requested.

#### **I. Allowable Subject Matter**

The Examiner is thanked for the indication that claims 1, 2, 4, and 35-40 are allowed.

#### **II. Rejections Under 35 U.S.C. §102(e)**

The Office Action rejects claims 51 and 53 under 35 U.S.C. § 102(e) over U.S. Patent No. 6,607,999 to Hachitani. The rejection is respectfully traversed.

Independent claim 51 recites forming a glass powder with a colorant added therein,

wherein the colorant is  $\text{Co}_2\text{O}_3$ , and forming a dielectric paste by mixing the glass powder, a binder, and a solvent, wherein the glass powder is  $\text{P}_2\text{O}_5$ - $\text{B}_2\text{O}_3$ - $\text{ZnO}$  group, and firing the dielectric past layer to form an upper dielectric layer formed by mixing 41.9 wt % ~ 52.0 wt % of  $\text{P}_2\text{O}_5$ , 3.3 wt % ~ 22.0 wt % of  $\text{B}_2\text{O}_3$  and 36.1 wt % ~ 44.7 wt % of  $\text{ZnO}$ . Hachitani neither discloses nor suggests such features.

Hachitani discloses a variety of compositions of a glass for a cathode ray tube (see column 7, lines 61-65, and column 8, lines 5-62 of Hachitani). Hachitani also discloses the function of each component of the disclosed compositions, as well as other components which may be added to further improve the compositions, in columns 9-11. However, Hachitani does not disclose or suggest an upper dielectric layer which includes a  $\text{Co}_2\text{O}_3$  and  $\text{P}_2\text{O}_5$ - $\text{B}_2\text{O}_3$ - $\text{ZnO}$  group glass.

Hachitani discloses second embodiment composition which includes 90% by weight of the components listed in column 14, line 57 through column 16, line 48 of Hachitani. Hachitani further discloses that, in addition to this listing of components (which comprise 90% by weight of the composition), the glass matrix may contain at least one selected from  $\text{MgO}$ ,  $\text{CaO}$ ,  $\text{ZnO}$ ,  $\text{La}_2\text{O}_3$ ,  $\text{P}_2\text{O}_5$ ,  $\text{B}_2\text{O}_3$ ,  $\text{SnO}_2$ ,  $\text{NiO}$ ,  $\text{Co}_2\text{O}_3$ ,  $\text{Cr}_2\text{O}_3$ , or  $\text{F}$ . However, Hachitani neither discloses nor suggests the specific composition of the upper dielectric layer as recited in independent claim 51, which includes 41.9 wt % ~ 52.0 wt % of  $\text{P}_2\text{O}_5$ , 3.3 wt % ~ 22.0 wt % of  $\text{B}_2\text{O}_3$  and 36.1 wt % ~ 44.7 wt % of  $\text{ZnO}$ .

Accordingly, independent claim 51 is not anticipated by Hachitani, and thus the rejection of independent claim 51 under 35 U.S.C. §102(e) over Hachitani should be withdrawn. Dependent claim 53 is allowable at least for the reasons set forth above with respect to independent claim 51 from which it depends, as well as for its added features

### **III. Rejections Under 35 U.S.C. §103(a)**

The Office Action rejects claims 41-44 and 48-50 over Lee, U.S. Patent Publication No. 2003/0102477 in view of U.S. Patent No. 5,948,537 to Onoda et al. (hereinafter “Onoda”), and further in view of U.S. Patent No. 5,714,840 to Tanabe et al. (hereinafter “Tanabe”). The Office Action also rejects claims 45-47 under 35 U.S.C. §103(a) over Lee in view of Onoda. Claim 43 is canceled. The rejections, insofar as they apply to the remaining claims, are respectfully traversed.

Independent claim 41 recites a glass powder, wherein the glass powder includes  $P_2O_5$ - $B_2O_3$ -ZnO group, and a colorant, wherein the colorant is  $Co_2O_3$ . Further, independent claim 48 recites a glass powder, wherein the glass powder is  $P_2O_5$ - $B_2O_3$ -ZnO group, and a colorant, wherein the colorant is  $Co_2O_3$ . Additionally, Independent claim 45 recites a colorant, wherein the colorant is  $Co_2O_3$ . Lee, Onoda, and Tanabe, either alone or in combination, neither disclose or suggest such features, or the claimed combinations.

More particularly, as acknowledged by the Examiner, Lee and Onoda, either alone or in combination, neither disclose nor suggest a  $Co_2O_3$  colorant, as recited in independent claims 41,

45, and 48. More particularly, the listing of possible colorants disclosed in paragraph 31 of Lee clearly does not include  $\text{Co}_2\text{O}_3$ . Further, Onoda merely teaches a variety of glass compositions, and does not disclose or suggest adding colorant to the glass. Rather, Onoda clearly teaches away from the addition of colorant, as Onoda specifically discloses the addition of  $\text{CeO}_2$  to prevent coloring of the glass (see column 4, lines 51-53 of Onoda). Still further, Tanabe is merely cited to teach the use of a  $\text{P}_2\text{O}_5$ - $\text{B}_2\text{O}_3$ - $\text{ZnO}$  based glass, and thus fails to overcome the deficiencies of Lee and Onoda.

Accordingly, it is respectfully submitted that independent claims 41, 45, and 48 are allowable over the applied combination, and thus the rejection of independent claims 41 and 48 under 35 U.S.C. §103(a) over Lee, Onoda, and Tanabe, and of independent claim 45 under 35 U.S.C. §103(a) over Lee and Onoda, should be withdrawn. Dependent claims 42, 44, 46-47, and 49-50 are allowable at least for the reasons set forth above with respect to independent claims 41, 45, and 48, from which they respectively depend, as well as for their added features.

#### **IV. New Claims 54-56**

New claims 54-56 are added to the application. It is respectfully submitted that new claims 54-56 are allowable over the applied prior art references and meet the requirements of 35 U.S.C. § 112. More specifically, independent claim 54 recites, *inter alia*, a dielectric formed on the front substrate and including  $\text{CO}_2\text{O}_3$ . As set forth above, none of the prior art references discloses or suggests the use of  $\text{CO}_2\text{O}_3$ . Further, new claims 54-56 simply provide a different

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recitation of the features of already allowed claims 1-2 and 4, and thus it is respectfully submitted that the combination of claims 54-56 has already been searched by the Examiner, and thus do not constitute a new issue requiring further consideration and/or search.

**V. Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, **JOANNA K. MASON**, at the telephone number listed below.

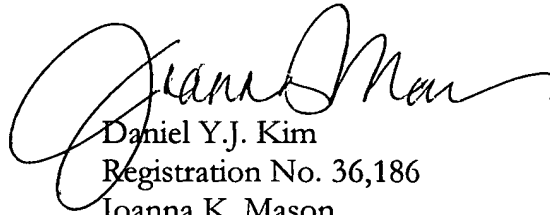
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and  
please credit any excess fees to such deposit account.

Respectfully submitted,  
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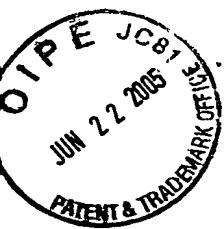


FIG. 5

